



RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/928,847A
Source: 6/PE
Date Processed by STIC: 2/19/2002

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission

User Manual (ePAVE)

2. U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202

3. Hand Carry directly to:

U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name,
Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202

Or

U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two,
2011 South Clark Place, Arlington, VA 22202

4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office,
Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 01/29/2002



OIPE

RAW SEQUENCE LISTING

DATE: 02/19/2002

PATENT APPLICATION: US/09/928,847A

TIME: 14:36:23

Input Set : A:\10022204.ST25.txt

Output Set: N:\CRF3\02192002\I928847A.raw

p.s

3 <110> APPLICANT: Novozymes A/S
 4 Jorgensen, Steen T
 5 Rasmussen, Michael D
 6 Andersen, Jens Tonne
 7 Olsen, Carsten
 9 <120> TITLE OF INVENTION: Multiple Insertion of Genes
 11 <130> FILE REFERENCE: 10022.204-US
 13 <140> CURRENT APPLICATION NUMBER: 09/928847A
 14 <141> CURRENT FILING DATE: 2001-08-13
 16 <160> NUMBER OF SEQ ID NOS: 50
 18 <170> SOFTWARE: PatentIn version 3.1
 20 <210> SEQ ID NO: 1
 21 <211> LENGTH: 30
 22 <212> TYPE: DNA
 23 <213> ORGANISM: Artificial Sequence
 25 <220> FEATURE:
 26 <223> OTHER INFORMATION: Primer
 28 <400> SEQUENCE: 1
 29 gactaagctt ctgcatagtg agagaagacg 30
 32 <210> SEQ ID NO: 2
 33 <211> LENGTH: 67
 34 <212> TYPE: DNA
 35 <213> ORGANISM: Artificial Sequence
 37 <220> FEATURE:
 38 <223> OTHER INFORMATION: Primer
 40 <400> SEQUENCE: 2
 41 gactgaattc agatctgcgg ccgcacgcgt gtcgacagta ctgaaataga ggaaaaaata 60
 43 agtttttc 67
 46 <210> SEQ ID NO: 3
 47 <211> LENGTH: 33
 48 <212> TYPE: DNA
 49 <213> ORGANISM: Artificial Sequence
 51 <220> FEATURE:
 52 <223> OTHER INFORMATION: Primer
 54 <400> SEQUENCE: 3
 55 gactgaattc cgtatccatt cctgcgatat gag 33
 58 <210> SEQ ID NO: 4
 59 <211> LENGTH: 41
 60 <212> TYPE: DNA
 61 <213> ORGANISM: Artificial Sequence
 63 <220> FEATURE:
 64 <223> OTHER INFORMATION: Primer
 66 <400> SEQUENCE: 4

Does Not Comply
 Corrected Diskette Needed

RAW SEQUENCE LISTING

DATE: 02/19/2002

PATENT APPLICATION: US/09/928,847A

TIME: 14:36:23

Input Set : A:\10022204.ST25.txt

Output Set: N:\CRF3\02192002\I928847A.raw

```

67 gactggatcc agatcttatt acaaccctga tgaatttgtc g 41
70 <210> SEQ ID NO: 5
71 <211> LENGTH: 60
72 <212> TYPE: DNA
73 <213> ORGANISM: Artificial Sequence
75 <220> FEATURE:
76 <223> OTHER INFORMATION: Primer
78 <400> SEQUENCE: 5
79 gactggatcc agatctgcta gcatcgatcc gcggctatct ccattgaaag cgattaattg 60
82 <210> SEQ ID NO: 6
83 <211> LENGTH: 31
84 <212> TYPE: DNA
85 <213> ORGANISM: Artificial Sequence
87 <220> FEATURE:
88 <223> OTHER INFORMATION: Primer
90 <400> SEQUENCE: 6
91 tatttcccga gattctgtta tcgactcgct c 31
94 <210> SEQ ID NO: 7
95 <211> LENGTH: 27
96 <212> TYPE: DNA
97 <213> ORGANISM: Artificial Sequence
99 <220> FEATURE:
100 <223> OTHER INFORMATION: Primer
102 <400> SEQUENCE: 7
103 gttttcggcc gctgtccggt cgtcttt 27
106 <210> SEQ ID NO: 8
107 <211> LENGTH: 27
108 <212> TYPE: DNA
109 <213> ORGANISM: Artificial Sequence
111 <220> FEATURE:
112 <223> OTHER INFORMATION: Primer
114 <400> SEQUENCE: 8
115 gtgtgacgga taaggccgcc gtcattg 27
118 <210> SEQ ID NO: 9
119 <211> LENGTH: 28
120 <212> TYPE: DNA
121 <213> ORGANISM: Artificial Sequence
123 <220> FEATURE:
124 <223> OTHER INFORMATION: Primer
126 <400> SEQUENCE: 9
127 ctcttgtctc ggagcctgca ttttgggg 28
130 <210> SEQ ID NO: 10
131 <211> LENGTH: 26
132 <212> TYPE: DNA
133 <213> ORGANISM: Artificial Sequence
135 <220> FEATURE:
136 <223> OTHER INFORMATION: Primer
138 <400> SEQUENCE: 10
139 agcattattc ttcgaagtcg cattgg 26

```

RAW SEQUENCE LISTING

DATE: 02/19/2002

PATENT APPLICATION: US/09/928,847A

TIME: 14:36:23

Input Set : A:\10022204.ST25.txt

Output Set: N:\CRF3\02192002\I928847A.raw

```

142 <210> SEQ ID NO: 11
143 <211> LENGTH: 45
144 <212> TYPE: DNA
145 <213> ORGANISM: Artificial Sequence
147 <220> FEATURE:
148 <223> OTHER INFORMATION: Primer
150 <400> SEQUENCE: 11
151 ttaagatctt ttttatacaa ataggcttaa caataaagta aatcc 45
154 <210> SEQ ID NO: 12
155 <211> LENGTH: 3342
156 <212> TYPE: DNA
157 <213> ORGANISM: Bacillus licheniformis
159 <220> FEATURE:
160 <221> NAME/KEY: CDS
161 <222> LOCATION: (1303)..(2469)
162 <223> OTHER INFORMATION:
165 <220> FEATURE:
166 <221> NAME/KEY: misc_feature
167 <222> LOCATION: (2685)..(2685)
168 <223> OTHER INFORMATION: n denotes an undetermined nucleotide
171 <400> SEQUENCE: 12
172 gcgtaccgtt aaagtcgaa acgcggtttct tcctttttac atccatggat taaaaagggg 60
174 ttgaaaaaag gtgagaaaaa gctttgtttt gcttttaacg gggctgcatg taatccttat 120
176 gctttctgcc tgcggccaaa aatcgcaaga agatgttggt acggggctcg acaagaaggc 180
178 aaaagaatac acgtcctata aggcaaaagc gaaaatgacc attgaaacgg ggaatgaccc 240
180 gcaggagtac aacgtggaaa tctggcataa aaaaccttct ctttaccggg tctatttgga 300
182 aaacccgaaa aaagaccaga gccagggtgat cttgcgcaat gaaaacggcg tgtttgtttt 360
184 gactccgtcg ctgaataaaa gcttccgctt tcacagcgac tggcccaata acagcagcca 420
186 ggtatactta ttcgaatcgc tcgtaaagga tgtcaaaaat gatggggaag cttctttttc 480
188 cgcaaaggat tcaaaatata tttttgaaac gaaaacgaat tatcagcata atcagatgct 540
190 gccgactcag gaaatcgttt tccataaaaa gaccatggct ccttcacatc tttaagtgat 600
192 ggataccgac cgcaaaccga tggtaaaggt tgagtttaca agctttgaat tcgataagcc 660
194 gctcgataaa gactcttttg atgaaaagaa aaatatgacg ctgtctcaaa ttgacgtagc 720
196 gacaagcgct gacgtgtcag actctttcgc tgtcaaaacg ccgctcgatg tgcctcagg 780
198 cgtgaaaaag cttgaagaga aagagatggc gactgaagac ggcaaacgga tcgtcatcac 840
200 atatggcggt gaaaaatcct ttacattgat tcaggaaaaa gcccgcgctg ccaaaacatc 900
202 cacttccgta tccatgaacg gagagcccgt tgacctcggc ttcacggctg gcgcactgac 960
204 ggataaatcg ttgtcatgga catatgaagg agtcgattac tttatctcat cagaagatct 1020
206 ttctcaagat gaacttctga tggttgcaaa aagcatgcag ggacagtctt cgaaatagac 1080
208 tgtgccgtat ccggcagcct gttttccgcc cggaagcgga aagcaggctt ttttatattt 1140
210 gcgtcgcaag cgtatgattt cgacagcttt tccgtaaaat gtataccgtg ccagcaattt 1200
212 ttcttttggt cagggctgat gatcccgctg aaaatttccc tttctccgaa ctttttagta 1260
214 tgatgggaag gacgagtga acaaggaaca ggaagtgtca tg atg agc tta aaa 1314
215 Met Ser Leu Lys
216 1
218 cca ttc tat aga aag aca tgg gcc gaa atc gat tta acg gct tta aaa 1362
219 Pro Phe Tyr Arg Lys Thr Trp Ala Glu Ile Asp Leu Thr Ala Leu Lys
220 5 10 15 20
222 gaa aac gtc cgc aat atg aag cgg cac atc ggc gag cat gtc cgc ctg 1410

```

RAW SEQUENCE LISTING

DATE: 02/19/2002

PATENT APPLICATION: US/09/928,847A

TIME: 14:36:23

Input Set : A:\10022204.ST25.txt

Output Set: N:\CRF3\02192002\I928847A.raw

223	Glu	Asn	Val	Arg	Asn	Met	Lys	Arg	His	Ile	Gly	Glu	His	Val	Arg	Leu	
224					25					30					35		
226	atg	gcc	gtc	gtt	aaa	gcg	aat	gcc	tac	gga	cac	ggg	gat	gca	cag	gta	1458
227	Met	Ala	Val	Val	Lys	Ala	Asn	Ala	Tyr	Gly	His	Gly	Asp	Ala	Gln	Val	
228				40					45					50			
230	gcg	aag	gcg	gct	ctt	gca	gaa	ggg	gcg	tcc	att	ctt	gct	gtg	gct	tta	1506
231	Ala	Lys	Ala	Ala	Leu	Ala	Glu	Gly	Ala	Ser	Ile	Leu	Ala	Val	Ala	Leu	
232			55					60					65				
234	ttg	gat	gaa	gcg	ctt	tcg	ctg	agg	gcg	cag	ggg	att	gaa	gaa	ccg	att	1554
235	Leu	Asp	Glu	Ala	Leu	Ser	Leu	Arg	Ala	Gln	Gly	Ile	Glu	Glu	Pro	Ile	
236		70					75					80					
238	ctt	gtc	ctc	ggt	gca	gtg	ccg	acc	gaa	tat	gca	agc	att	gcc	gcg	gaa	1602
239	Leu	Val	Leu	Gly	Ala	Val	Pro	Thr	Glu	Tyr	Ala	Ser	Ile	Ala	Ala	Glu	
240	85					90					95				100		
242	aag	cgc	att	atc	gtg	act	ggc	tac	tcc	gtc	ggc	tgg	ctg	aaa	gac	gtg	1650
243	Lys	Arg	Ile	Ile	Val	Thr	Gly	Tyr	Ser	Val	Gly	Trp	Leu	Lys	Asp	Val	
244					105					110					115		
246	ctc	ggt	ttt	ctg	aat	gag	gcc	gaa	gct	cct	ctt	gaa	tat	cat	ttg	aag	1698
247	Leu	Gly	Phe	Leu	Asn	Glu	Ala	Glu	Ala	Pro	Leu	Glu	Tyr	His	Leu	Lys	
248				120					125				130				
250	atc	gac	acg	ggc	atg	ggc	cgc	ctt	ggc	tgc	aaa	acg	gaa	gaa	gag	atc	1746
251	Ile	Asp	Thr	Gly	Met	Gly	Arg	Leu	Gly	Cys	Lys	Thr	Glu	Glu	Glu	Ile	
252			135					140					145				
254	aaa	gaa	atg	atg	gag	atg	acc	gaa	tcg	aac	gat	aag	ctc	aat	tgt	acg	1794
255	Lys	Glu	Met	Met	Glu	Met	Thr	Glu	Ser	Asn	Asp	Lys	Leu	Asn	Cys	Thr	
256		150					155					160					
258	ggc	gtg	ttc	act	cat	ttc	gcc	acg	gcg	gac	gaa	aag	gac	acc	gat	tat	1842
259	Gly	Val	Phe	Thr	His	Phe	Ala	Thr	Ala	Asp	Glu	Lys	Asp	Thr	Asp	Tyr	
260	165					170					175					180	
262	ttc	aac	atg	cat	ctt	gac	cgc	ttt	aaa	gag	ctg	atc	agc	ccc	ttc	ccg	1890
263	Phe	Asn	Met	His	Leu	Asp	Arg	Phe	Lys	Glu	Leu	Ile	Ser	Pro	Phe	Pro	
264					185					190					195		
266	ctt	gac	cgt	ttg	atg	gtg	cat	tcg	tca	aac	agc	gcc	gcg	ggt	ctg	cgc	1938
267	Leu	Asp	Arg	Leu	Met	Val	His	Ser	Ser	Asn	Ser	Ala	Ala	Gly	Leu	Arg	
268				200					205					210			
270	ttc	agg	gaa	cag	cta	ttt	aat	gcc	gtc	cgc	ttc	ggc	atc	ggc	atg	tac	1986
271	Phe	Arg	Glu	Gln	Leu	Phe	Asn	Ala	Val	Arg	Phe	Gly	Ile	Gly	Met	Tyr	
272			215					220					225				
274	ggt	ttg	gcg	ccg	tca	acc	gaa	ata	aaa	gac	gag	ctg	ccg	ttt	cgt	ctg	2034
275	Gly	Leu	Ala	Pro	Ser	Thr	Glu	Ile	Lys	Asp	Glu	Leu	Pro	Phe	Arg	Leu	
276		230					235					240					
278	cgg	gaa	gtg	ttt	tcg	ctt	cat	acc	gaa	ctc	acc	cat	gtg	aaa	aaa	att	2082
279	Arg	Glu	Val	Phe	Ser	Leu	His	Thr	Glu	Leu	Thr	His	Val	Lys	Lys	Ile	
280	245					250					255					260	
282	aaa	aaa	ggc	gag	agc	gtc	agc	tac	ggg	gcg	aca	tat	aca	gct	cag	cgc	2130
283	Lys	Lys	Gly	Glu	Ser	Val	Ser	Tyr	Gly	Ala	Thr	Tyr	Thr	Ala	Gln	Arg	
284				265						270				275			
286	gac	gaa	tgg	atc	ggg	aca	gtc	ccc	gtc	ggg	tat	gcc	gac	gga	tgg	ctg	2178
287	Asp	Glu	Trp	Ile	Gly	Thr	Val	Pro	Val	Gly	Tyr	Ala	Asp	Gly	Trp	Leu	

RAW SEQUENCE LISTING

DATE: 02/19/2002

PATENT APPLICATION: US/09/928,847A

TIME: 14:36:23

Input Set : A:\10022204.ST25.txt

Output Set: N:\CRF3\02192002\I928847A.raw

288 280 285 290
 290 agg cgc ctg gcc gga acg gaa gtg ctg atc gac gga aaa cgc caa aaa 2226
 291 Arg Arg Leu Ala Gly Thr Glu Val Leu Ile Asp Gly Lys Arg Gln Lys
 292 295 300 305
 294 ata gca ggg aga atc tgc atg gac cag ttc atg att tcc ctt gcc gaa 2274
 295 Ile Ala Gly Arg Ile Cys Met Asp Gln Phe Met Ile Ser Leu Ala Glu
 296 310 315 320
 298 gaa tac cct gtc ggc aca aag gtt acc ttg atc gga aag caa aaa gac 2322
 299 Glu Tyr Pro Val Gly Thr Lys Val Thr Leu Ile Gly Lys Gln Lys Asp
 300 325 330 335 340
 302 gaa tgg atc tca gtc gac gaa atc gcc caa aat ttg cag acg atc aat 2370
 303 Glu Trp Ile Ser Val Asp Glu Ile Ala Gln Asn Leu Gln Thr Ile Asn
 304 345 350 355
 306 tat gaa att acc tgt atg ata agt tca agg gtg ccc cgt atg ttt ttg 2418
 307 Tyr Glu Ile Thr Cys Met Ile Ser Ser Arg Val Pro Arg Met Phe Leu
 308 360 365 370
 310 gaa aat ggg agt ata atg gaa ata agg aat ccg atc ttg cct gat caa 2466
 311 Glu Asn Gly Ser Ile Met Glu Ile Arg Asn Pro Ile Leu Pro Asp Gln
 312 375 380 385
 314 tcc tgaaaattga tgaattagcg gaaaaacaac tttgcttgcg aaaagaataa 2519
 315 Ser
 318 tgatatgatt atgaatggaa tggatagagt gttgtatccg taagtttggg ggaggtgtat 2579
 320 gtttttgtct gaatccagcg caacaactga aatattgatt cgcttgccag aagctttagt 2639
 322 **atcagaactg gatggtgtcg tcatgcgaga taaccgggag cagganatga actgatttta** 2699
 324 ccaagccaca aaaatgtagg aacgcgaacg caaaaaatcg acaaattcgg ggaatcgatg 2759
 326 agaagcggtt atatggagat ggccaagatc caatttgaac atctcttctg aggcctcaatt 2819
 328 tgcagagtat gaggtgaaa acacagtaga gcgcttacta agcggatgat aatcatttga 2879
 330 ttgttaaacy cggcgatgtt tattttgctg acctatctcc tgttggtggc tcagaacaag 2939
 332 gcggggtgcy cccggtttta gtgattcaaa acaacatcgg caatcgcttc agcccaactg 2999
 334 ctattgttgc agccataaca gcccaaatac agaaagcaaa attacctacc cacgtcgaaa 3059
 336 ttgatgcgaa acgctacggt tttgaaagag actccggttat attgctcgaa caaattcgga 3119
 338 cgattgacaa gcaaagatta acggacaaaa tcacccatct cgatgatgaa atgatggaaa 3179
 340 aggtcaacga agccttacia atcagtttgg cactcattga tttttaatat tgatgaaagt 3239
 342 tgctcgaggc gaaagagcaa ctttttttgt gttcaaaaat aacaatacga tataatggta 3299
 344 actgttagtc ctaaaaatgt tagccagatg tagtcagggg gat 3342
 347 <210> SEQ ID NO: 13
 348 <211> LENGTH: 389
 349 <212> TYPE: PRT
 350 <213> ORGANISM: Bacillus licheniformis
 352 <220> FEATURE:
 353 <221> NAME/KEY: misc feature
 354 <222> LOCATION: (2685)...(2685)
 355 <223> OTHER INFORMATION: n denotes an undetermined nucleotide
 357 <400> SEQUENCE: 13
 359 Met Ser Leu Lys Pro Phe Tyr Arg Lys Thr Trp Ala Glu Ile Asp Leu
 360 1 5 10 15
 363 Thr Ala Leu Lys Glu Asn Val Arg Asn Met Lys Arg His Ile Gly Glu
 364 20 25 30
 367 His Val Arg Leu Met Ala Val Val Lys Ala Asn Ala Tyr Gly His Gly

FYI →

Use of n and/or Xaa has been detected in the Sequence Listing.
 Review the Sequence Listing to insure a corresponding
 explanation is presented in the <220> to <223> fields of
 each sequence using n or Xaa.

This is an
 amino acid
 sequence
 Please correct
 this type of error
 in subsequent
 sequence.

VERIFICATION SUMMARY

DATE: 02/19/2002

PATENT APPLICATION: US/09/928,847A

TIME: 14:36:24

Input Set : A:\10022204.ST25.txt

Output Set: N:\CRF3\02192002\I928847A.raw

L:322 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12

L:1415 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49